5. **How many** integers (numbers) are there between 1 and 10 (inclusive)? 10

6. **How many** integers (numbers) are there between 3 and 10 (inclusive)? 8

An integer between 1 and 25 (inclusive) is drawn at random. Find the **probability** that:

7. The integer is **even**.

2 4 6 8 10 12 14
16 18 20 22 24
12/25

8. The integer is a **multiple of 3**.

3 6 9 12 15 18 21 24
8/25

9. The integer is a **multiple of 5**.

5 10 15 20 25
5/25

You have a bag with colored marbles. There are 3 blue, 8 red, 4 yellow, and 1 orange.
What's the **probability** that you draw a: 16 total

10. blue $\frac{3}{16}$

11. orange $\frac{1}{16}$

12. red $\frac{8}{16}$

13. blue or orange

3 1
$\frac{4}{16}$

You have a bag with colored marbles. There are 3 blue, 8 red, 4 yellow, and 1 orange. 16 total
What are the **odds** that you draw a:

14. blue $\frac{3}{13}$

15. yellow $\frac{4}{12}$

16. red $\frac{8}{8}$

Find the **odds** of randomly choosing the indicated letter from a bag that contains the letters in the name of the given state.

17. S from the word MISSISSIPPI 11 tot.

$\frac{4}{7}$

18. N from PENNSYLVANIA 12

$\frac{3}{9}$

19. E from TENNESSEE 9

4
$\frac{4}{5}$

You are playing with a deck of cards. 52 total
Find the **probability** for each event:

20. drawing a **red** card

$\frac{26}{52}$

21. drawing a **diamond**

$\frac{13}{52}$

22. drawing a **face** card

3 × 4 = 12
$\frac{12}{52}$

HW11 Probability and Odds

I will be able to find probability and odds for an event.

Name Key Hr____

Experimental Probability	Theoretical Probability	Odds
$p = \frac{\text{number of favorable outcomes}}{\text{total number of trials}}$	$p = \frac{\text{number of favorable outcomes}}{\text{total number of outcomes}}$	$odds = \frac{\text{number of favorable outcomes}}{\text{number of unfavorable outcomes}}$

Experimental Probability

Trial	1	2	3	4	5	6	7	8	9	10
Coin 1										
Coin 2										

Based on the data above, find the **experimental probability** that:

1. Each coin came up heads
2. Both coins came up the same
3. At least one coin is heads

Coin 1: _____

Coin 2: _____

Theoretical Probability

A bag contains 10 bagels: 3 plain, 4 raisin, 2 blueberry, and a poppy seed. If a bagel is chosen at random, what is the **probability** of choosing:

4. a raisin? $\frac{4}{10}$
5. a poppy seed? $\frac{1}{10}$
6. a plain or blueberry? 3 2 $\frac{5}{10}$

Odds

A bag contains 10 bagels: 3 plain, 4 raisin, 2 blueberry, and a poppy seed. If a bagel is chosen at random, what are the odds of choosing:

7. a raisin? $\frac{4}{6}$ or 4:6
8. a poppy seed? $\frac{1}{9}$ or 1:9
9. a plain or blueberry? $\frac{5}{5}$ or 5:5

LEARNING CHECK: What's the difference between odds and probability?

Homework:

Trial	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Dice 1																				
Dice 2																				

Based on the data above, find the **experimental probability** that:

1. Each dice is even
2. The sum is greater than 5
3. Both dice are the same
4. The sum is 8